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Executive Summary

The American Gas Association represents the nation's local gas utilities. AGA member companies acquire gas supply for, and distribute it to, their residential and commercial customers. As a result, the availability of adequate supplies of competitively priced natural gas is of critical importance to AGA and its member companies.

The natural gas industry is currently at a critical crossroads. The "gas bubble" of the 1980s and 1990s disappeared prior to the winter of 2000-2001. Supply and demand is now in balance. The industry today no longer basks in prodigious supply; rather, it treads a supply tightrope, bringing with it often unpredictable economic and political consequences—most importantly high prices and higher price volatility. Both consequences harm natural gas consumers—residential, commercial, and industrial.

Energy is the lifeblood of our economy. High, volatile natural gas prices put America at a competitive disadvantage, cause plant closings, and idle workers. Government must take prompt and appropriate steps to ensure the nation of adequate supplies of natural gas at reasonable prices. Moreover, it is expected that natural gas demand will increase by 50 percent over the next two decades. This growth will occur because natural gas is the most environmentally friendly fossil fuel and because natural gas is an economic and reliable source of energy. It is in the national interest that natural gas be available to serve the demands of the market.

Many of the fields from which natural gas is currently produced are mature. Over the last two decades, technological advances have greatly enhanced the ability to find natural gas as well as to produce the maximum amount possible from a field. However, if America's needs for energy are to be met, there is no choice except for exploration and production activity to migrate into new areas. The nation's natural gas resource base is rich and diverse. It is simply a matter of taking exploration and production (E&P) activity to the many known areas where natural gas is found or thought to exist. Regrettably, many of these areas are either totally closed to exploration and development or are subject to so many restrictions that timely and economic development is not possible. The E&P business is, as a result of technological improvements, enormously more environmentally sensitive today than it was 25 years ago. As a result, current restrictions on land access need to be reevaluated given the nation's energy needs.

The most important step Congress can take to address these issues is to ensure that lands where natural gas is believed to exist are available for environmentally sound exploration and development. Additionally, it is appropriate to create incentives to seek and produce this natural gas.

Testimony

Good morning. I am David N. Parker, President and Chief Executive Officer of the American Gas Association ("AGA"). AGA is grateful for the opportunity to share its views with you on the critical importance to the nation of ensuring ample natural gas supplies at competitive prices. Doing so is necessary for the nation, both to protect consumers and to address the energy and economic situations we currently face.

AGA is composed of 191 natural gas distribution companies, which deliver gas throughout the United States. Local gas utilities deliver gas to more than 64 million customers nationwide. AGA members deliver approximately 83 percent of this gas.

Our members are charged with the responsibility, under local law or regulation, of acquiring natural gas for the majority of their customers. Having available adequate supplies of natural gas at reasonable prices is thus a critical issue for AGA and its members. Accordingly, AGA members and the consumers they serve share both an interest and a perspective on this subject.

I would like to make clear that the bread and butter business of AGA members is acquiring and delivering natural gas to residential, commercial, and industrial consumers across America. Our members remain economically viable by delivering natural gas to consumers at the lowest reasonable price, which we do by operating our systems—over a million miles of distribution lines—as efficiently as possible. Exploring for and producing natural gas is the business of our energy-industry colleagues in the oil and gas business, whether they are major, independent, or "Mom and Pop" operators. We are not here to speak for them today, but their continued success in providing natural gas to America's consumers is of great importance to us as well.

AGA is encouraged that Congress is coming to grips with this important issue. Adequate natural gas supply is crucial to all of America for a number of reasons. It is imperative that government take significant action in the very near term to assure the continued economic growth, environmental protection, and national security of our nation. The tumultuous events in energy markets over the last two years serve to underscore the importance of adequate and reliable supplies of reasonably priced natural gas to consumers, to the economy, and to national security.

The natural gas industry is presently at a critical crossroads. For the past three years gas production has had to operate full-tilt to meet consumer demand. The "surplus deliverability" or "gas bubble" of the late 1980's and 1990's is simply gone. No longer is demand met while unneeded production facilities sit idle. No longer can new demand be met by simply opening the valve a few turns. The valves are wide open.

The supply tightrope has brought with it several inexorable and unpleasant consequences—prices in the wholesale market have gone up and that market has become much more volatile. During the 2000-2001 heating season, for example, gas prices moved from the \$2 level to approximately \$10 and back again to nearly \$2. Such volatility hurts consumers, puts domestic industry at a competitive disadvantage, closes plants, and idles workers. The winter of 2000-2001 made it abundantly clear to us (and to you as well) that consumers do not like these price increases and they do not like the market volatility that is now an everyday norm. Unless significant actions are taken on the supply side, gas markets will remain tumultuous, and 64 million gas customers will suffer the consequences. As gas utilities, we have a number of programs in place to insulate consumers, to some extent, from the full impact of wholesale price volatility, but consumers must still ultimately pay the price.

The demand for natural gas in the U.S. is expected to increase 50 percent by 2015-2020. Growth seems inevitable because gas is a clean, economic, domestic source of available energy. It does not face the environmental hurdles of coal and nuclear energy, the economic and technological drawbacks of most renewable energy forms, or the national security problems associated with imported oil.

The challenge for both government and industry is quite straightforward: to ensure that the current need for natural gas is met and that the future need for natural gas will be met at reasonable and economic prices. There can be no responsible question that facilitating this result is sound public policy. Natural gas is abundant domestically, and natural gas is the environmentally friendly fuel of choice. Ensuring adequate natural gas supply will lead to reasonable prices for consumers, will dampen the unacceptable volatility of wholesale natural gas markets, will help keep the economy growing, and will help protect the environment.

America has a large and diverse natural gas resource; producing it, however, can be a challenge. Providing the natural gas that the economy requires will necessitate: (1) providing incentives to bring the plentiful reserves of North American natural gas to production and, hence, to market; (2) making available for

exploration and production the lands where natural gas is already known to exist so gas can be produced on an economic and timely basis; (3) ensuring that the new infrastructure that will be needed to serve the market is in place in timely and economic fashion.

Natural gas—our cleanest fossil fuel—is found in abundance throughout both North America and the world. It currently meets one-fourth of the United States' energy needs. Unlike oil, about 99 percent of the natural gas supplied to U.S. consumers originates in the United States or Canada.

The natural gas resource base in the U.S. has increased over the last several decades. In fact we now believe that we have more natural gas in the U.S. than we estimated twenty years ago, notwithstanding the production of between 300 and 400 trillion cubic feet of gas in the interim. This is true in part because new sources of gas, such as coalbed methane, have become an important part of the resource base.

Natural gas production is sustained and grows only by drilling in currently productive areas or by exploring in new areas. Over the past two decades, a number of technological revolutions have swept across our industry. We are able today to drill for gas with dramatically greater success and with significantly reduced environmental impact than we did twenty years ago. We are also much more efficient in producing the maximum amount of natural gas from a given area of land. A host of technological advances allows producers to identify and extract natural gas deeper, smarter, and more efficiently. For example, the drilling success rate for wells deeper than 15,000 feet has improved dramatically. In addition, gas trapped in coal seams, tight sands or shale is no longer out of reach.

While further improvements in this regard can be expected, they will not be sufficient to meet growing demand unless they are coupled with other measures. Regrettably, technology alone cannot indefinitely extend the production life of mature producing areas. New areas and sources of gas will be necessary.

Notwithstanding the dramatic impact of innovation upon our business, the inevitable fact today is that we have reached a point of rapidly diminishing returns with many existing natural gas fields. This is almost entirely a product of the laws of petroleum geology. The first ten wells in a field may ultimately produce 60 percent of the gas in that field, while it may take forty more to produce the balance. In many of the natural gas fields in America today, we are long past those first ten wells and are well into those forty wells in the field. In other words, the low-hanging fruit have already been picked in the orchards that are open for business.

Drilling activity in the U.S. has moved over time, from onshore Kansas, Oklahoma and Arkansas to offshore Texas and Louisiana, and then to the Rocky Mountains. Historically, we have been quite dependent on fields in the Gulf of Mexico. But recent production declines in the shallow waters of the Gulf of Mexico have necessitated migration of activity to deeper waters to offset this decline. These newer, more expensive, deepwater fields also tend to have short lives and significantly more rapid rates of decline in production than is the case with onshore wells.

In short, America's natural gas fields are mature—in fact many are well into their golden years. There is no new technology on the horizon that will permit us to pull a rabbit out of a hat in these fields. These simple, and incontrovertible, facts explain why we are today walking a supply tightrope and why the winter of 2000-2001 may become a regular occurrence, particularly at the point the economy returns to its full vigor. Having the winter of 2000-2001 return every year will undoubtedly put a brake on the economy, once again causing lost output, idle productive capacity, and lost jobs.

If we are to continue to meet the energy demands of America and its citizens and if we are to meet the demands that they will make upon us in the next two decades, we must change course. It will not be enough to make a slight adjustment of the tiller or to wait three or four more years to push it over full. Rather, we must come full about, and we must do it in the very near future. Lead times are long in our business, and meeting demand years down the road requires that we begin work today.

We have several reasonable and practical options. And, as I hope you do understand, continuing to do what we have been doing is simply not enough.

First, and most importantly, we must look to new frontiers within the United States. Further growth in production from this resource base is jeopardized by limitations currently placed on access to it. For example, the natural gas resource base off the East and West Coasts of the U.S. is off-limits to development, while much of the Eastern Gulf of Mexico is currently closed to any exploration and production

activity. Moreover, access to large portions of the Rocky Mountains is severely restricted. The potential for increased production of natural gas is severely constrained so long as these restrictions remain in place.

In this vein, the Rocky Mountain region is expected to be a growing supplier of natural gas, but only if access to key prospects is not unduly impeded by stipulations and restrictions. Two separate studies by the National Petroleum Council and the U.S. Department of the Interior reached a similar conclusion—that nearly 40 percent of the gas resource base in the Rockies was restricted from development to some degree, some partially and some totally. On this issue the Department of the Interior noted that there are nearly 1,000 different stipulations that can impede resource development on federal lands.

One of the most significant new gas discoveries in North America in the past ten years is located just north of the US/Canada border in eastern Canada coastal waters on the Scotian Shelf. Natural gas discoveries have been made at Sable Island and Deep Panuke. Gas production from Sable Island already serves Canada's Maritimes Provinces and New England through an offshore and land-based pipeline system. This has been done with positive economic benefits to the region and without environmental degradation. This experience provides an important example for the United States, where we believe the offshore Atlantic area to have similar geology.

In some areas we appear to be marching backward. The buy-back of federal leases where discoveries had already been made in the Destin Dome area (offshore Florida) of the eastern Gulf of Mexico was a step back in terms of satisfying consumer gas demand. This action was contrary to what needs to be done to meet America's energy needs.

Geographic expansion of gas exploration and drilling activity has for the entirety of the last century been essential to sustaining growth in natural gas production. Future migration, to new frontiers, to new fields, in both the U.S. and Canada will also be critical. Without production from geographic areas that are currently subject to access restrictions, it is not at all likely that producers will be able to continue to provide increased amounts of natural gas from the lower-48 states to customers for longer than 10 or 15 years. We believe that the same is true in Canada as well.

Quite simply, we do not believe that there is any way other than exploring for natural gas in new geographic areas to meet America's anticipated demand for natural gas unless we turn increasingly to sources located outside North America.

We do not advance this thesis lightly. Over the past two years, both the American Gas Association and the American Gas Foundation have studied this important issue vigorously. We believe it is necessary for policy makers to embrace this thesis so that natural gas can continue to be—as it has been for nearly a century—a safe and reliable form of energy that is America's best energy value and its most environmentally benign fossil fuel.

When the first energy shock transpired in the early 1970s, the nation learned, quite painfully, the price of dependency upon foreign sources of crude oil. We also learned, through long gasoline lines and shuttered factories, that energy is the lifeblood of our economy. Yet thirty years later we are even more dependent upon foreign oil than we were in 1970. Regrettably, the nation has since failed to make the policy choices that would have brought us freedom from undue dependence on foreign-source energy supplies. We hope that the nation can reflect upon that thirty-year experience and today make the correct policy choices with regard to its future natural gas supply. We can blame some of the past energy problems on a lack of foresight, understanding, and experience. We will not be permitted to do so again.

Meeting our nation's ever-increasing demand for energy has an impact on the environment, regardless of the energy source. The challenge, therefore, is to balance these competing policy objectives realistically. Even with dramatic improvements in the efficient use of energy, U.S. energy demand has increased more than 25 percent since 1973, and significant continued growth is almost certain. Satisfying this energy demand will continue to affect air, land and water. A great American success story is that, with but five percent of the world's population, we produce nearly one-third of the planet's economic output. And energy is an essential—indeed critical—input for that success story to both continue and grow.

It is imperative that energy needs be balanced with environmental impacts and that this evaluation be complete and up-to-date. There is no doubt that growing usage of natural gas harmonizes both objectives. Finding and producing natural gas is today accomplished through sophisticated technologies and methodologies that are cleaner, more efficient and much more environmentally sound than those used in the

1970s. It is unfortunate that many restrictions on natural gas production have simply not taken account of the important technological developments of the preceding thirty years. The result has been policies that deter and forestall increased usage of natural gas, which is, after all, the nation's most environmentally benign and cost-effective energy source.

Natural gas consumers enjoyed stable prices from the mid-1980s to 2000, with prices that actually fell when adjusted for inflation. Today, however, the balance between supply and demand has become extremely tight, creating the tightrope effect. Even small changes in weather, economic activity, and world energy trends result in wholesale natural gas price fluctuations. We saw this most dramatically in the winter of 2000-2001. In the 1980s and '90s, when the wholesale (wellhead) price of traditional natural gas sources was around \$2 per million British thermal units, natural gas from deep waters and Alaska, as well as LNG, may not have been price competitive. However, most analysts suggest that these sources are competitive when gas is in a \$3.00 to \$4.00 price environment. Increased volumes of natural gas from a wider mix of sources will be vital to meeting consumer demand and to ensuring that natural gas remains affordable.

Increasing natural gas supplies will boost economic development and will promote environmental protection, while ensuring more stable prices for natural gas customers. Most importantly, increasing natural gas supplies will give customers—ours and yours—what they seek—reasonable prices, greater price stability, and fuel for our vibrant economy. However, without policy changes with regard to natural gas supply, as well as expansion of production, pipeline, and local delivery infrastructure for natural gas, the natural gas industry will have difficulty meeting the anticipated 50 percent increase in market demand. Price increases, price volatility, and a brake on the economy will be inevitable.

Second, we can increase our focus on non-traditional sources, such as liquefied natural gas (LNG). Reliance upon LNG has been modest to date, but it is clear that increases will be necessary to meet growing market demand. Today, roughly 99 percent of the U.S. gas supply comes from traditional land-based and offshore supply areas in North America. But, during the next two decades, non-traditional supply sources such as LNG will likely account for a significantly larger share of the supply mix. LNG has become increasingly economic. It is a commonly used worldwide technology that allows natural gas produced in one part of the world to be liquefied through a chilling process, transported via tanker and then re-gasified and injected into the pipeline system of the receiving country. Although LNG currently supplies less than 1 percent of the gas consumed in the U.S., it represents nearly 100 percent of the gas consumed in Japan. LNG has proven to be safe, economical, and consistent with environmental quality. Due to constraints on other forms of gas supply and increasingly favorable LNG economics, LNG is likely to be a more significant contributor to US gas markets in the future. It will certainly not be as large a contributor as imported oil (nearly 60 percent of US oil consumption), but it could account for 10-15 percent of domestic gas consumption 15-20 years from now if pursued aggressively and if impediments are reduced.

Third, we can tap the huge potential of Alaska. Alaska is estimated to contain more than 250 trillion cubic feet—enough to satisfy US natural gas demand by itself for more than a decade. Authorizations were granted twenty-five years ago to move gas from the North Slope to the Lower-48, yet no gas is flowing today nor is any transportation system yet under construction. Indeed, every day the North Slope produces approximately 8 billion cubic feet of natural gas that is re-injected because it has no way to market. Alaskan gas has the potential to be the single largest source of price and volatility relief for US gas consumers. Deliveries from the North Slope would not only put downward pressure on gas prices, but they would also spur the development of other gas sources in the state as well as in northern Canada.

Fourth, we can look to our neighbors to the north. Canadian gas supply has grown dramatically over the last decade in terms of the portion of the U.S. market that it has captured. At present, Canada supplies approximately 15 percent of the United States' needs. We should continue to rely upon Canadian gas, but it may not be realistic to expect the U.S. market share for Canadian gas to continue to grow as it has in the past or to rely upon Canadian new frontier gas to meet the bulk of the increased demand that lay ahead in the United States.

Recommendations

To promote meeting consumer needs, economic vitality, and sound environmental stewardship, the American Gas Association urges the Congress as follows:

Ø Current restrictions on access to new sources of natural gas supply must be re-evaluated in light of technological improvements that have made natural gas exploration and production more environmentally

sensitive.

Ø Federal and state officials must take the lead in overcoming the pervasive “not in my backyard” attitude toward energy infrastructure development, including gas production.

Ø Interagency activity directed specifically toward expediting environmental review and permitting of natural gas pipelines and drilling programs is necessary, and agencies must be held responsible for not meeting time stipulations on lease, lease review, and permitting procedures.

Ø Federal lands must continue to be leased for multi-purpose use, including oil and gas extraction and infrastructure construction.

Ø Tax provisions such as percentage depletion, expensing geological and geophysical costs in the year incurred, Section 29 credits, and other credits encourage investment in drilling programs, and such provisions are often necessary, particularly in areas faced with increasing costs due to environmental and other stipulations.

Ø Economic viability must be considered along with environmental and technology standards in an effort to develop a “least impact” approach to exploration and development but not a “zero impact”.

Ø The geologic conditions for oil and gas discovery similar to that in eastern Canada extend to the US mid-Atlantic area.

- Although some prospects have been previously tested, new evaluations of Atlantic oil and gas potential should be completed using today’s technology – in contrast to that of 20 to 30 years ago.

- The federal government should facilitate this activity by lifting or modifying the current moratoria regarding drilling and other activities in the Atlantic Offshore to ensure that adequate geological and geophysical evaluations can be made and that exploratory drilling can proceed.

- The federal government must work with the Atlantic Coast states to assist—not impede—the process of moving natural gas supplies to nearby markets should gas resources be discovered in commercial quantities. Federal agencies and states must work together to ensure the quality of the environment but they must also ensure that infrastructure (such as landing an offshore pipeline) is permitted and not held up by multi-jurisdictional roadblocks.

Ø The Federal government should continue to permit royalty relief where appropriate to change the risk profile for companies trying to manage the technical and regulatory risks of operations in deepwater.

Ø Coastal Zone Management (CZMA) is being used to threaten or thwart offshore natural gas production and the pipeline infrastructure necessary to deliver natural gas to markets in ways not originally intended. Companies face this impediment even though leases to be developed may be 100 miles offshore. These impediments must be eliminated or at least managed within a context of making safe, secure delivery of natural gas to market a reality.

Ø The U.S. government should work closely with Canadian and Mexican officials to address the challenges of supplying North America with competitively priced natural gas in an environmentally sound manner.

Ø Renewable forms of energy should play a greater role in meeting U.S. energy needs, but government officials and customers must realize that all forms of energy have environmental impacts.

Ø Construction of an Alaskan natural gas pipeline must begin as quickly as possible.

- Construction of this pipeline is possible with acceptable levels of environmental impact.

- The pipeline project would be the largest private sector investment in history, and it would pose a huge financial risk to project sponsors.

- The project will not be undertaken without some form of federal support – loan guarantee, accelerated depreciation, investment tax credit and/or marginal well tax credit.

- These forms of support are not unprecedented and they would reduce project risk thereby reducing

transportation charges that are ultimately borne by the consumer.

Ø The Federal Energy Regulatory Commission (FERC) announced in a new policy in December of 2002 that it would not require LNG terminals to be “open access” (that is, common carriers) at the point where tankers offload LNG. This policy will spur LNG development because it reduces project uncertainty and risk. Other federal and state agencies should review any regulations that impede LNG projects and act similarly to reduce or eliminate these impediments.

Ø The siting of LNG offloading terminals (currently four operable are in the U.S.) is generally the most time consuming roadblock for new LNG projects. Federal agencies should take the lead in demonstrating the need for timely approval of proposed offloading terminals, and state officials must begin to view such projects as a means to satisfy supply and price concerns of residential, commercial, and industrial customers.